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A REVISION OF THE GENUS *ACANTHOTYLA* STÅL WITH THE DESCRIPTION OF FIVE NEW SPECIES AND SYNONYMICAL NOTE (HETEROPTERA: COREIDAE: COLPURINI)

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Abstract.—The genus *Acanthotyla* Stål is revised. The following **new species** are described: ***A. kaloboana***, ***A. kiungala***, ***A. nabirenia***, and ***A. protenta*** all from New Guinea and ***A. borneana*** from Borneo. *Acanthotyla aruana* Horvath is synonymized with *A. fasciata* (Walker) (**n. syn.**); new records for the previously known species are added. Habitus illustrations and drawings of the male and female genitalia, as well as head and pronotum, are provided, and a key to the known species is presented.

Key Words: Hemiptera, Heteroptera, Coreidae, Colpurini, revision *Acanthotyla,* new species, Borneo, New Guinea, synonymical note

The genus *Acanthotyla* was proposed by Stål (1873) to include only the species *Cletus fasciatus* Walker (1871) from Mysol Island. *Cletus crassus* Walker (1871), described in the same paper, was transferred to *Acanthotyla* by Blote (1936), but later Brailovsky (1995) moved it to his new genus *Brachylybastella* as the type species. Breddin (1900) included *Acanthotyla* in his key to the genera of Colpurini. The second known species, *A. aruana* Horvath (1919), is synonymyzed in this paper under *A. fasciata.* The last group of species was described by Blote (1936) from New Guinea under the binomial names *Acanthotyla distinguenda* and *Brachylybas flexuosus.* Brailovsky (1993) revised the Colpurini of Australia and recorded *A. fasciata* for the first time from that region, and later Brailovsky and Martinez (1994) transferred *B. flexuosus* to *Acanthotyla.*

Acanthotyla belongs to the group of Colpurini with abdominal sternite VII of the female without plica or fissura, and has not been previously reviewed or revised. The genus is characterized by having the tylus projecting in front of juga, upturned to form a horn at the apex, the mandibular plates with prominent tubercle, the antennal segment III longer than IV, the antenniferous tubercles at outer corner projected forward, calli conspicuously convex, and posterior lobe of pronotal disk with a transverse wrinkle. The specific differences are chiefly in the development of the humeral angles and the intercallar space of the pronotum; the shape of the posteroventral edge of the male genital capsule, and shape of the female genital plates.

Members of this genus are distributed from Borneo, Aru Island, Mysol Island, Irian Jaya, Papua New Guinea, and Australia (Brailovsky 1993).

Previously, only three species of *Acanthotyla, A. distinguenda, A. fasciata,* and *A. flexuosa,* were known. In this contribution the genus is redescribed, new records for *A. distinguenda, A. fasciata,* and *A. flexuosa* are given, and five new species, from Borneo, Irian Jaya, and Papua New Guinea are

described. *Acanthotyla aruana* Horvath is synonymyzed under *A. fasciata.*

The following abbreviations indicate institutions where specimens are deposited or from which material was generously lent: The Natural History Museum, London (BMNH); Bernice P. Bishop Museum, Honolulu, Hawaii (BPBM); California Academy of Sciences, San Francisco, California (CAS); Hungarian Natural History Museum, Budapest (HNHM); Natural History Museum of Los Angeles County, California (LACM); Queensland Museum, Brisbane, Australia (QMBA); Rijksmuseum van Naturlijke Histoire, Leiden, Netherlands (RNHL); Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Germany (SMFD); Colección Entomológica del Instituto de Biología, Universidad Nacional Autónoma de México (UNAM); National Museum of Natural History, Smithsonian Institution, Washington D.C. (USNM); Zoologisches Museum, Humboldt Universität, Berlin, Germany (ZMHB); Zoologische Staatssammlung München, Germany (ZSMC).

All measurements are given in millimeters.

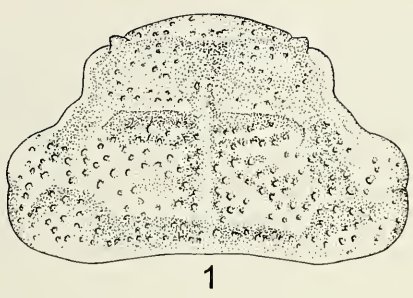
Acanthotyla Stål

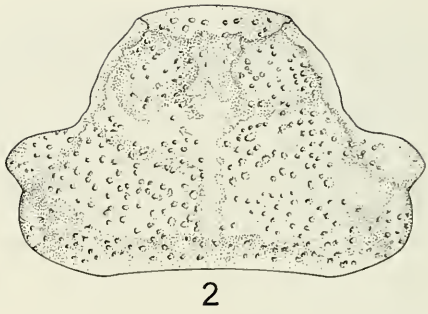
Acanthotyla Stål 1873: 68; Breddin 1900: 194; Blote 1936: 50; Brailovsky 1995: 93. Type species: *Cletus fasciatus* Walker 1871: 196–197. Designation by Monotypy.

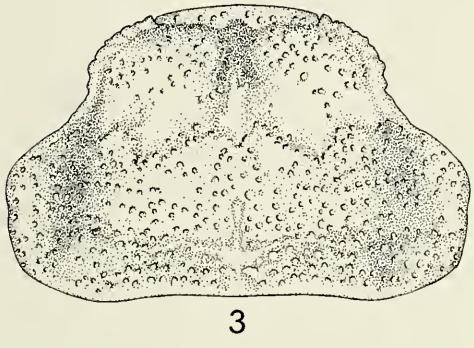
Diagnosis.—Like *Agathyrna* Stål, in this genus the tylus projects in front of juga, upturned to form a small horn at its apex, the mandibular plates are directly below apices of juga and with small prominent tubercle, buccula short, raised and angulate behind anterior emargination, and abdominal sternite VII of female entire, without plica or fissura. In *Acanthotyla,* antennal segment IV is shorter than III, the head dorsally strongly convex, antenniferous tubercles at outer apical corner projected forward, posterior lobe of pronotal disc with a transverse wrinkle, calli conspicuously convex, femora unarmed or with double row of tiny tubercles, and male genital capsule usually with small to large median projection (Figs. 11–25). In *Agathyrna,* antennal segments III and IV are subequal in length, the head dorsally weakly convex, the antenniferous tubercles at outer apex obtuse, not armed, posterior lobe of pronotal disc without transverse wrinkle, calli almost flat, femora ventrally armed, and male genital capsule obtusely rounded at apex, and never projecting into spine.

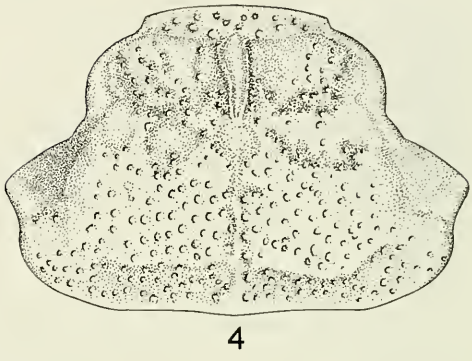
Generic redescription.—*Head:* Width across eyes greater than head length; quadrangular, dorsally convex to moderately globose; tylus extending anteriorly to juga, apically upturned to form a sharp median horn; juga unarmed, thickened, shorter than tylus; antenniferous tubercles armed with a short and robust lobe; sides of head in front of eyes unarmed, straight; antennal segment I robust, thickest, slightly curved outward; segments II and III cylindrical, slender, and segment IV fusiform; antennal segment II longest, IV shortest, and III longer than I; ocelli weakly elevated, with a deep circular pit in front of each; eyes substylate, protuberant; postocular tubercle moderately protuberant; buccula short, elevated, angulate behind anterior emargination, not projected beyond antenniferous tubercles, with sharp posterior projection; rostrum reaching anterior third of abdominal sternite III or IV; mandibular plates directly below apices of juga, each with prominent tubercle.

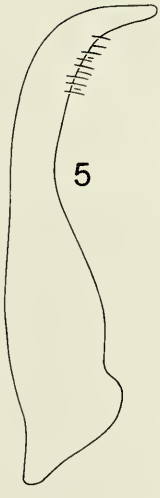
Thorax: Pronotum wider than long, trapeziform, moderately to strongly declivent, and bilobed; anterior lobe shorter than posterior lobe; collar wide; frontal angles produced forward as small conical teeth sometimes difficult to see; anterior half of anterolateral margins convexly rounded, and posterior half obliquely straight; humeral angles rounded to obtuse, moderately to conspicuously directed upward, and hardly prominent; posterolateral and posterior margins straight; calli conspicuously convex to globose, separated along midline by

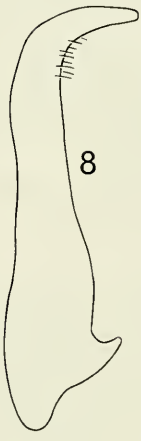


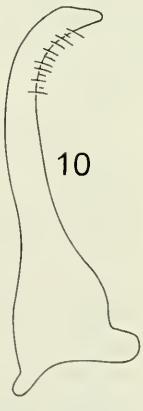












Figs. 1–10. *Acanthotyla* spp. 1–4, Pronotum. 1, *A. fasciata*. 2, *A. flexuosa*. 3, *A. kaloboana*. 4, *A. kiungala*. 5–10, Parameres. 5–6, *A. protenta*. 7–8, *A. distinguenda*. 9–10, *A. fasciata*.

a longitudinal furrow, entirely flat, or separated by a convex longitudinal expansion; posterior margin with transverse wrinkle (Figs. 1–4); anterior lobe of metathoracic peritreme reniform, posterior lobe sharp, small; mesosternum with longitudinal furrow; propleura laterally convex to hemispheric, in dorsal view visible. Legs unarmed; femora usually tuberculate; tibiae cylindrical, sulcated.

Scutellum: Triangular, longer than wide, apically rounded to subacute; disc basally markedly globose, and distally before the apex remarkably depressed.

Hemelytron: Macropterous, almost reaching apex of last abdominal segment; apical margin sinuate to obliquely straight; apical angle reaching almost middle third of hemelytral membrane; costal margin emarginate.

Abdomen: Connexivum higher than terga; connexival margin entire, and posterior angle blunt, and not extended into spine; abdominal sterna with median longitudinal furrow running to posterior third of sternite IV.

Male genital capsule: Usually with small to large median projection (Figs. 11–15). Parameres simple, elongate, with apical third slightly curved (Figs. 5–10).

Female genitalia: Abdominal sternite VII complete, without plica or fissura (Figs. 26–35).

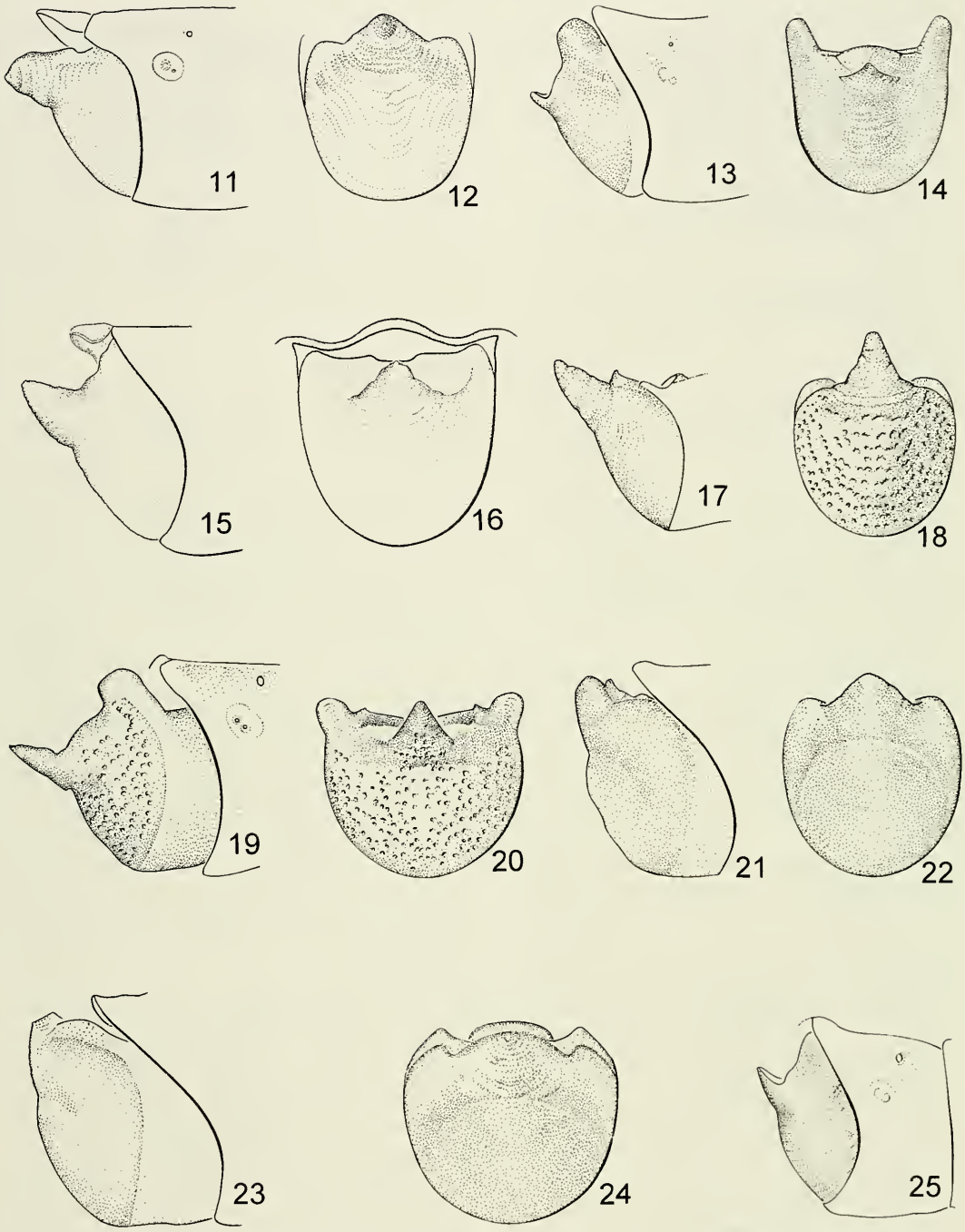
Integument: Body surface rather dull, with short, decumbent to suberect indistinct pubescence; abdominal sterna with few moderately long, and conspicuous bristle like hairs; pubescence of antennae and femora short, mainly suberect; pubescence of tibiae and tarsi longer and rather dense; dorsal and ventral surface of head, pronotum, scutellum, clavus, corium, propleura, mesopleura, metapleura, abdominal sterna, and exposed parts of genital plates of both sexes strongly punctate, and each puncture deeply excavated; prosternum, mesosternum, and metasternum smooth; antenna and legs minutely granulate to tuberculate.

Features in Common for Species Described

Coloration: 1, Antennal segment I yellow speckled with pale brown or pale orange irregular spots. 2, Hemelytral membrane pale to dark brown with yellow veins. 3, Connexivum reddish brown with anterior third and posterior margin yellow. 4, Prosternum, mesosternum, and metasternum black to reddish brown. 5, Anterior and posterior lobe of metathoracic peritreme pale yellow.

Key to Species of *Acanthotyla*

1. Head in dorsal view almost entirely black to reddish brown 2
– Head in dorsal view yellow with punctures reddish brown to chestnut orange 8
2. Male 3
– Female 6
3. Posteroventral edge of male genital capsule at middle third with a stout or slender and elongate projection obliquely directed upward (Figs. 15–16, 19–20) 4
– Posteroventral edge of male genital capsule without stout or elongate projection (Figs. 13–14, 21–22, 25) 5
4. Posteroventral edge of genital capsule at middle third with a stout spinous conical projection; lateral angles of genital capsule with short blunt processes (Figs. 15–16); humeral angles broad, rounded, and not exposed ..... *A. distinguenda* Blote
– Posteroventral edge of genital capsule at middle third with a relatively slender, elongate conical projection, apically acute; lateral angles of genital capsule elevated, exposed, and apically quadrate (Figs. 19–20); humeral angles weakly exposed, and narrowed ..... *A. protenta,* n.sp.
5. Posteroventral edge of genital capsule at middle third with tiny projection directed upward, and sometimes hard to see (Figs. 13–14, 25); intercallar space broad and flat; humeral angles rounded (Fig. 1) ..... *A. fasciata* (Walker)
– Posteroventral edge of genital capsule at middle third broad, thick, without stout spinous projection directed upward (Figs. 21–22); intercallar space narrow, with a weakly longitudinal carina; humeral angles laminate ..... *A. nabirenia,* n.sp.
6. Gonocoxae I with mesial margin broadly contiguous, and not emarginate; paratergite IX at lower third exposed, and distally bifurcate



Figs. 11–25. Male genital capsule of *Acanthotyla* spp. 11, 13, 15, 17, 19, 21, 23, 25, Lateral view. 12, 14, 16, 18, 20, 22, 24, Caudal view. 11–12, *A. borneana.* 13–14, 25, *A. fasciata.* 15–16, *A. distinguenda.* 17–18, *A. kiungala.* 19–20, *A. protenta.* 21–22, *A. nabirenia.* 23–24, *A. kaloboana.*

(Figs. 29–30, 33, 35) . . . . . *A. distinguenda* Blote, *A. fasciata* (Walker), and *A. protenta*, n.sp.

– Gonocoxae I with the mesial margin broadly contiguous, and conspicuously emarginate; paratergite IX with lower third not exposed and distally truncated (Figs. 26, 31) 7

7. Mesial margin of gonocoxae I with the space between the border and the margin strongly depressed throughout the entire plate (Figs. 28, 32) . . . . . *A. kaloboana*, n.sp.

– Mesial margin of gonocoxae I with the space between the border and the margin shallowly depressed . . . . . *A. nabirenia*, n.sp.

8. Male 9

– Female 12

9. Posteroventral edge of genital capsule at middle third broad, thick, without a stout spinous projection directed upward (Figs. 23–24) . . . . . *A. kaloboana*, n.sp.

– Posteroventral edge of genital capsule at middle third with stout and broad or elongate projection (Figs. 11–12, 17–18) 10

10. Posteroventral edge of genital capsule at middle third with a relatively elongate spinous conical projection, directed posteriorly and upward (Figs. 17–18) . . . . . *A. kiungala*, n.s.p.

– Posteroventral edge of genital capsule at middle third with broad projection (Figs. 11–12) 11

11. Posteroventral edge of male genital capsule at middle third with stout quadrate projection, apically bifid, and clearly directed upward . . . . . *A. flexuosa* (Blote)

– Posteroventral edge of genital capsule at middle third with stout, rounded tubercle, directed posteriorly and upward (Figs. 11–12) . . . . . *A. borneana*, n.sp.

12. Mesial margin of gonocoxae I with the space between the border and the margin strongly depressed throughout the entire plate (Figs. 26, 31) . . . . . *A. kaloboana*, n.sp.

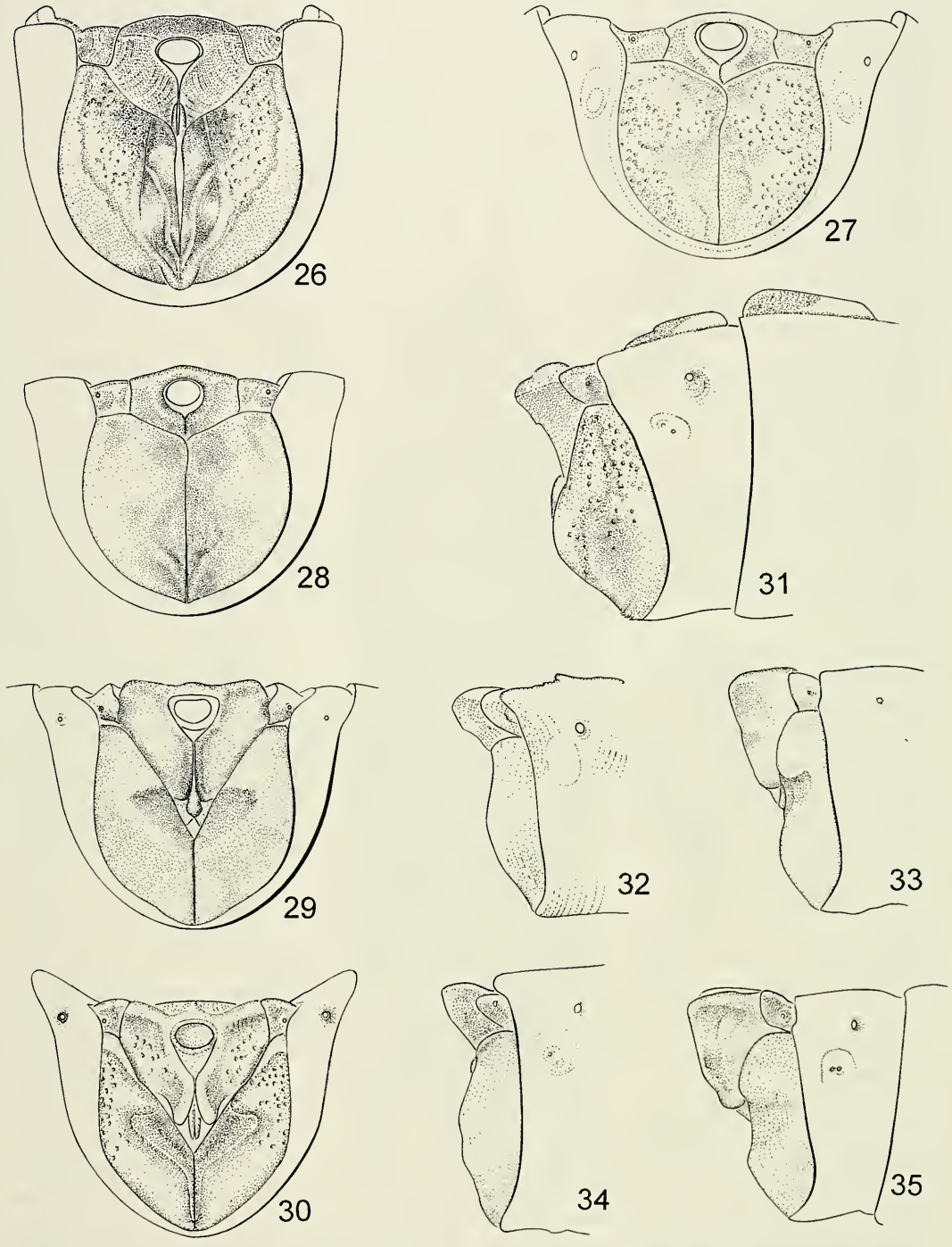
– Lower and mesial margin of gonocoxae I with the space between the border and the margin shallowly depressed (Figs. 27–28, 32 34) . . . . . *A. borneana*, n.sp., *A. flexuosa* (Blote), and *A. kiungala*, n.sp.

Acanthotyla borneana Brailovsky, new species

(Figs. 11–12, 27, 34)

Description.—*Measurements:* Male: Head length 1.50; width across eyes 1.88; interocular space 1.12; preocular distance 1.22; interocellar space 0.43; length of antennal segments: I, 2.08; II, 2.96; III, 2.08; IV, 1.28. Pronotum: Length 2.16; maximum width of anterior lobe 1.84; maximum width of posterior lobe 3.20. Scutellar length 1.44; width 1.32. Body length 9.62. Female: Head length 1.60; width across eyes 1.98; interocular space 1.18; preocular distance 1.26; interocellar space 0.44; length of antennal segments: I, 2.14; II, 3.12; III, 2.16; IV, 1.28. Pronotum: Length 2.40; maximum width of anterior lobe 2.00; maximum width of posterior lobe 3.38. Scutellar length 1.60; width 1.52. Body length 10.48.

Male: *Dorsal coloration:* Head yellow with punctures chestnut orange; antennal segments II and III yellow, and IV dark chestnut orange with apex paler; anterior lobe of pronotal disk dark yellow, with transversal fascia behind calli pale yellow, and punctures reddish; intercallar space dark brown with orange reflections; posterior lobe of pronotal disk pale orange brown with punctures reddish; scutellum yellow with punctures chestnut orange and basal angle black; clavus and corium pale brown, with punctures reddish brown to chestnut orange, and claval and corial veins, and costal margin yellow; apical margin pale brown with yellow marks; dorsal abdominal segments dark orange with black marks. *Ventral coloration:* Head yellow with punctures chestnut orange, and middle third with broad longitudinal black stripe; rostral segment I yellow with chestnut orange reflections, and segments II to IV chestnut orange; propleura, mesopleura, and metapleura yellow with punctures chestnut orange; coxae dark reddish brown; trochanters yellow; fore and middle femora yellow, speckled with pale brown discoidal spots, and with subdistal pale brown ring; hind femur yellow, speckled with pale brown discoidal spots, and with two pale brown rings, one near middle third and the other subdistal; tibiae pale brown with two yellow rings, one subbasal, the other near middle third; tarsi pale chestnut yellow; middle third of abdominal sterna dark reddish brown, and laterally yellow with punctures reddish



Figs. 26–35. Female genital plates of *Acanthotyla* spp. 26–30, Caudal view. 31–35, Lateral view. 26, 31, *A. kaloboana*. 27, 34, *A. borneana*. 28, 32, *A. flexuosa*. 29, 33, *A. distinguenda*. 30, 35, *A. protenta*.

brown to chestnut orange; genital capsule reddish brown.

Head: Rostrum reaching anterior third of abdominal sternite IV.

Thorax: Humeral angles subacute, elevated, slightly laminate, and higher than posterior pronotal disk; intercallar space narrow with prominent carina.

Genital capsule: Posteroventral edge transversely concave; lateral angles straight not expanded; middle third with stout and rounded tubercle, directed posteriorly and clearly upward (Figs. 11–12).

Female: Color similar to male. Connexival segments VIII and IX dark chestnut orange with reddish brown reflections; dorsal abdominal segments VIII and IX dark chestnut orange; genital plates yellow with punctures chestnut orange to reddish brown, and with middle third of gonocoxae I and outer margin of paratergite IX reddish brown.

Genital plates: Gonocoxae I enlarged dorsoventrally; mesial margin broadly contiguous and weakly emarginated; parallel to each margin at lower and middle third shallowly depressed, with upper third overlapping; paratergite VIII small, triangular, with spiracle visible; paratergite IX not overlapping at middle third, and larger than paratergite VIII (Figs. 27, 34).

Type material.—Holotype: ♂, Borneo (British N.), Sandakan Bay (SW), Sapagaya Lumber Camp, 2–20 m, 4 November 1957, J. L. Gressitt (BPBM). Paratype: 1 ♀, same data as the male holotype (BPBM).

Distribution.—Only known from the type material.

Discussion.—This species is diagnosed mostly on the basis of the shape of the posteroventral edge of male genital capsule (Figs. 11–12), the intercallar space narrow with prominent carina, the humeral angles subacute and slightly laminate, and the head mostly yellow with punctures chestnut orange. In *Acanthotyla distinguenda* and *A. fasciata* the intercallar space is broad and flat, the humeral angles are rounded and not laminate, the head is mostly black, and the shape of the male genital capsule is distinct (Figs. 13–16, 25).

Etymology.—Named for its occurrence in Borneo.

Acanthotyla distinguenda Blote
(Figs. 7–8, 15–16, 29, 33, 36)

Acanthotyla distinguenda Blote 1936: 50.

Redescription.—*Measurements:* Male: Head length 1.40–144; width across eyes 1.97–2.01; interocular space 1.24–1.34; preocular distance 1.08–1.12; interocellar space 0.38–0.44; length of antennal segments: I, 1.62–1.64; II, 2.40–2.52; III, 1.76–1.97; IV, 1.20–1.32. Pronotum: Length 1.76–1.84; maximum width of anterior lobe 1.40–1.76; maximum width of posterior lobe 2.64–2.76. Scutellar length 1.42–1.44; width 1.16–1.24. Body length 8.45–9.30. Female: Head length 1.52–1.56; width across eyes 2.12–2.14; interocular space 1.33–1.36; preocular distance 1.16–120; interocellar space 0.40–0.46; length of antennal segments: I, 1.60–1.68; II, 2.48–2.50; III, 1.79–1.84; IV, 1.1.30–1.32. Pronotum: Length 2.08–212; maximum width of anterior lobe 1.44–1.80; maximum width of posterior lobe 2.82–2.84. Scutellar length 1.52–1.54; width 1.30–1.32. Body length 10.15–10.38.

Male: *Dorsal coloration:* Black with tylus and postocular tubercle yellow; antennal segments II and III pale yellow, and IV pale yellow with basal joint pale brown; jugum yellow with punctures reddish brown; pronotum dark to pale yellow with punctures chestnut orange and intercallar space black; scutellum pale yellow with punctures chestnut orange, and basal angle black; clavus and corium pale yellow brown with punctures reddish brown; claval and corial veins, and costal and apical margin pale yellow; dorsal abdominal segments dark orange. *Ventral coloration:* Head black with two short longitudinal yellow stripes lateral to middle line and close to eyes; buccula yellow with punctures chestnut orange; rostral segments pale chestnut orange; propleura,

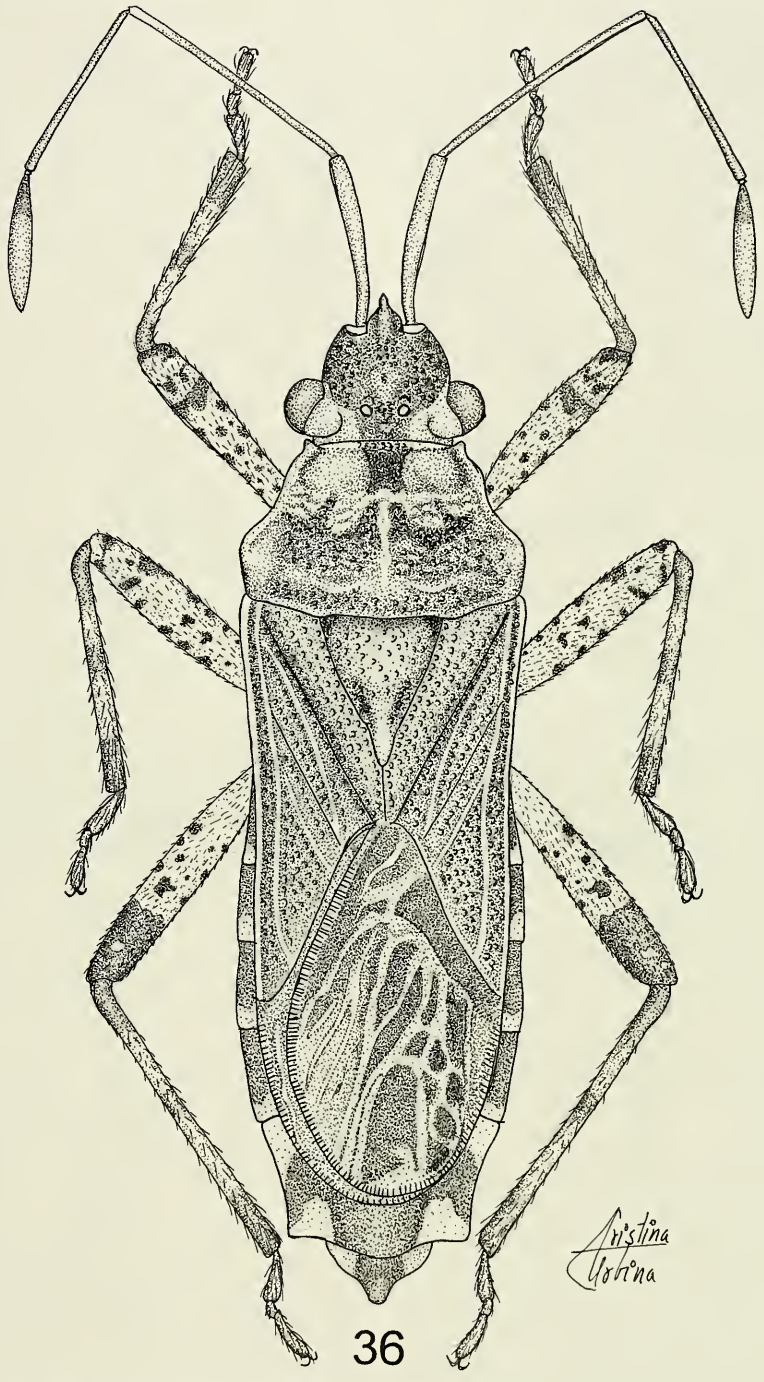


Fig. 36. Dorsal view of *Acanthotyla distinguenda*, male.

mesopleura, and metapleura yellow with punctures chestnut orange; coxae dark reddish brown with apex yellow; trochanters yellow; fore and middle femora yellow, speckled with pale brown discoidal spots, and with subdistal pale brown ring; hind femur yellow, speckled with pale brown discoidal spots, and with two pale brown rings, one near middle third and other subdistal; tibiae pale brown with two yellow rings, one subbasal, other near middle third; tarsi pale chestnut yellow; middle third of abdominal sterna dark reddish brown, and laterally yellow with punctures reddish brown to chestnut orange; genital capsule reddish brown.

Head: Rostrum reaching posterior margin of abdominal sternite III.

Thorax: Humeral angles rounded, slightly prominent, elevated, and higher than posterior pronotal disk; intercallar space broad and flat.

Genital capsule: Posteroventral edge transversely straight or slightly concave; lateral angles with short blunt processes; middle third with stout spinous conical projection, obliquely directed upward (Figs. 15–16). Parameres in Figs. 7–8.

Female: Color similar to male. Connexival segments VIII and IX yellow with posterior third reddish brown; dorsal abdominal segments VIII and IX dark reddish brown; genital plates yellow with punctures, posterior third of paratergite VIII and IX, and middle third of gonocoxae I dark reddish brown.

Genital plates: Gonocoxae I reniform, enlarged dorsoventrally, with deep depression close to middle third; mesial margin broadly contiguous and not emarginate; paratergite VIII and IX totally exposed; paratergite VIII small, triangular, with spiracle visible; paratergite IX not overlapping at middle third, larger than paratergite VIII, strongly carinated, exposed, and reflexed, with lower third bifurcate (Figs. 29, 33).

Variation.—1, Antennal segment I pale chestnut orange, speckled with pale brown irregular spots. 2, Antennal segments II and III pale chestnut orange. 3, Antennal segment IV chestnut orange with basal joint dark brown. 4, Hemelytral membrane dark brown to black with veins pale yellow. 5, Outer margin of calli black. 6, Trochanter yellow with tiny pale brown stripe.

Distribution.—This species is known only from New Guinea. The only previously known record came from the original description in which the holotype, allotype and paratypes were collected: Indonesia: Irian Jaya (Dutch New Guinea): Manokwari, Andai, Hattam, Assiki on Digul, Kopstein, and Sekroe (Blote 1936). The new records listed below show it occurs extensively in New Guinea.

Material examined.—1 ♂, INDONESIA: Irian Jaya (Dutch New Guinea), Manokwari, J. W. van Nouhuys (holotype RNHL). PAPUA NEW GUINEA: 2 ♂, Bisianumu, E. of Port Moresby, 500 m, 23 September 1955, J. L. Gressitt (BPBM); 1 ♂, 1 ♀, Middle Fly River, 250–300 m, July 1928, Pemberton (BPBM); 1 ♂, Morobe, D. Bullog Rd., S. Slopes Yaningya, 600–1300 m, 19–20 March 1968, Reni (BPBM); Sogeri, 27 October 1968, Tawi and Mena (BPBM). Indonesia: Irian Jaya: 1 ♂, 1 ♀, Jayawijaya Prov., Brazza River, Dekai, ca. 100 m, 21–22 June 1994, A. Riedel (ZSMC); 1 ♀, Jayawijaya Prov., Samboka, upper Koiff River, ca. 200 m, 10–14 October 1996, A. Riedel (ZSMC); 1 ♂, Jayawijaya Prov., Kec Waigeo Sel., Gamang Isl., 0–100 m, 26 November 1996, A. Riedel (ZSMC); Merauke Prov., Asmat-Patipi, Brazza River, 100 m, A. Riedel (USNM); 1 ♂, 1 ♀, Manokwari Prov., Wasior, 0–500 m, 8–12 January 2001, A. Riedel (UNAM); 5 ♀, Manokwari, Ransiki, Mayuby, 300 m, 26–30 September 1990, A. Riedel (ZSMC); 1 ♂, Nabire, Pusppensaat km. 60, 200 m, 15 August 1991, A. Riedel (ZSMC).

Discussion.—*Acanthotyla distinguenda* is easily distinguished by the shape of the posteroventral edge of the male genital capsule which shows a stout conical obliquely erected projection, with short blunt processes at lateral angles (Figs. 15–16). In *A.*

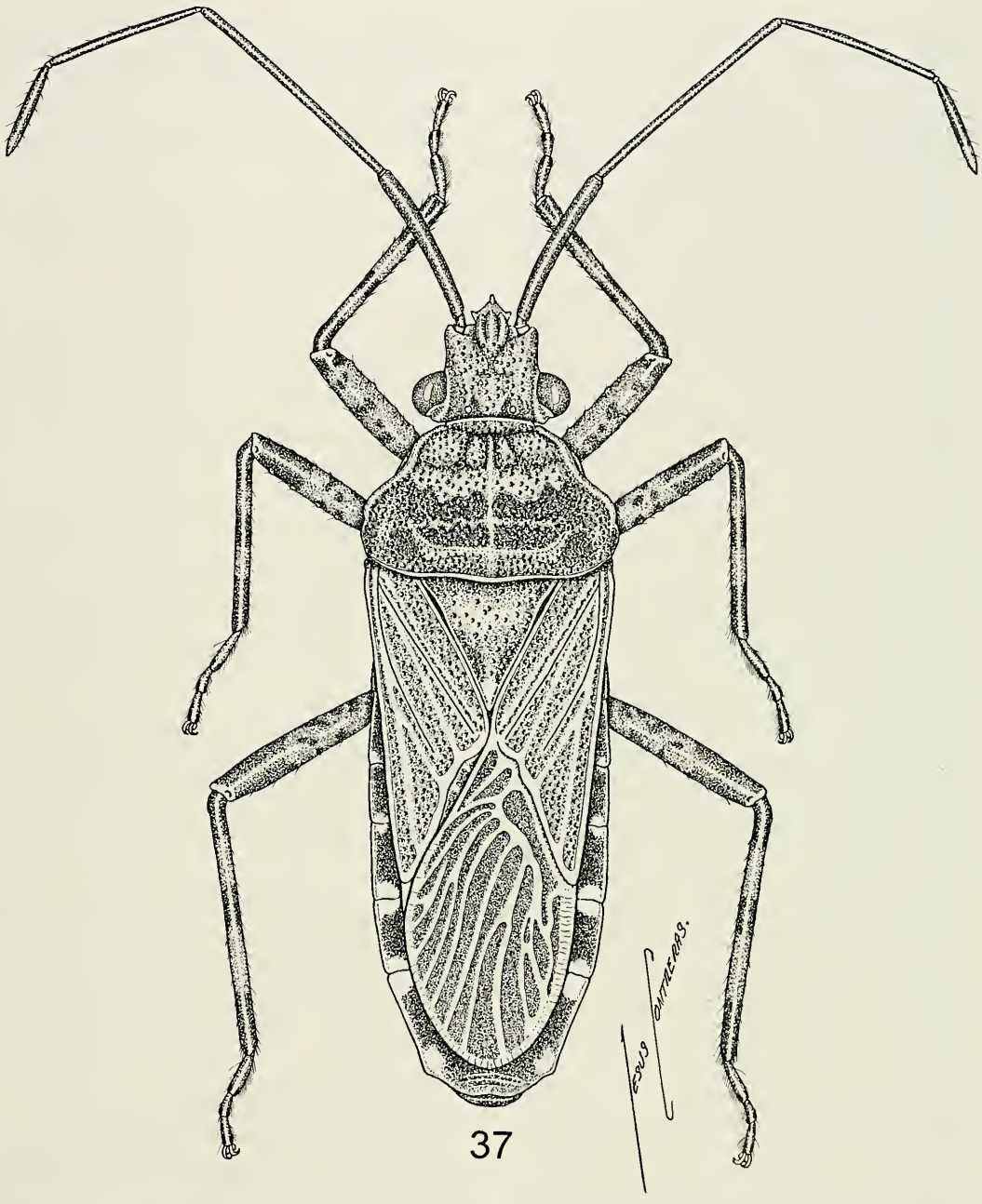


Fig. 37. Dorsal view of *Acanthotyla kaloboana,* male.

fasciata, the most similar species, the posteroventral edge has a tiny projection, sometime difficult to see (Figs. 13–14, 25).

The females of both species including the shape of the genital plates, are remarkably similar (Figs. 29, 33).

Acanthotyla fasciata (Walker)
(Figs. 1, 9–10, 13–14, 25)

Cletus fasciatus Walker 1871: 196–197; Distant 1901: 20; *Acanthotyla fasciata:* Stål 1873: 68; Brailovsky 1993: 37.

Acanthotyla aruana Horvath 1919: 310. **New synonym.**

Redescription.—*Measurements:* Male: Head length 1.32–1.48; width across eyes 1.74–1.88; interocular space 1.08–1.16; preocular distance 1.00–1.04; interocellar space 0.36–0.42; length of antennal segments: I, 1.36–1.96; II, 1.76–2.66; III, 1.47–1.54; IV, 1.00–1.08. Pronotum: Length 1.80–1.92; maximum width of anterior lobe 1.64–1.74; maximum width of posterior lobe 2.54–3.24. Scutellar length 1.24–1.56; width 1.04–1.44. Body length 8.20–9.72. Female: Head length 1.36–1.50; width across eyes 1.84–1.92; interocular space 1.10–1.12; preocular distance 1.07–1.09; interocellar space 0.36–0.42; length of antennal segments: I, 1.30–2.04; II, 1.96–2.64; III, 1.51–1.54; IV, 1.04–1.08. Pronotum: Length 1.88–1.96; maximum width of anterior lobe 1.70–1.76; maximum width of posterior lobe 2.80–3.22. Scutellar length 1.36–1.56; width 1.24–1.40. Body length 9.20–10.30.

Male: *Dorsal coloration:* Head pale yellow with punctures dark reddish brown, or black with tylus and postocular tubercle yellow; antennal segments II and III pale chestnut yellow, and IV chestnut orange with basal joint pale brown; pronotum yellow with punctures chestnut orange, and the intercallar space black; scutellum, clavus and corium yellow with punctures chestnut orange; claval and corial veins pale yellow; dorsal abdominal segments dark orange. *Ventral coloration:* Head black with two short longitudinal yellow stripes lateral to middle line and close to eyes; buccula yellow with punctures pale chestnut orange; rostral segments I to IV chestnut yellow (apex of IV darker); propleura, mesopleura, and metapleura yellow with punctures chestnut orange; coxae dark reddish brown; trochanter yellow; femora yellow, speckled with pale brown discoidal spots; tibiae pale chestnut brown with two yellow rings, one subbasal, other near middle third; tarsi pale chestnut yellow; middle third of abdominal sterna dark orange brown, and laterally yellow with punctures chestnut orange; genital capsule dark orange brown.

Head: Rostrum reaching posterior third of abdominal sternite III or anterior border of IV.

Thorax: Humeral angles rounded, hardly prominent, and higher than posterior pronotal disk; intercallar space broad and flat (Fig. 1).

Genital capsule: Posteroventral edge transversely straight or slightly concave; lateral angles with relatively short, quadrate processes; middle third with small wide projection, apically rounded, directed upward, and sometimes hard to see (Figs. 13–14, 25). Parameres in Figs. 9–10.

Female: Color similar to male. Connexival segments VIII and IX dark brown with anterior half yellow; dorsal abdominal segments VIII and IX dark orange brown; genital plates yellow with punctures and posterior third of paratergite VIII and IX chestnut orange.

Genital plates: Gonocoxae I reniform, enlarged dorsoventrally, with deep depression close to middle third; mesial margin broadly contiguous and not emarginate; paratergite VIII and IX totally exposed; paratergite VIII small triangular with spiracle visible; paratergite IX squarish, not overlapping at middle third, larger than paratergite VIII, strongly carinate, exposed, and reflexed, with lower third bifurcate. General shape similar to *A. distinguenda* (Figs. 29, 33).

Variation.—Subdistal third of femora with or lacking a pale brown ring.

Distribution.—This species was originally described from Mysol (Walker 1871), and later recorded from New Guinea (Stål 1873) and Australia (Brailovsky 1993: North Queensland: Cape York Peninsula: Gordon Ck., West Claudie R., and Rocky River). Horvath (1919) recorded it as *Acanthotyla aruana* from Aru Island. The new records listed below indicate it occurs extensively in New Guinea.

Material examined.—Syntypes: ♂, ♀,

Mysol (BMNH). Holotype: ♂, Aru Island: Terangan, zwischen Erersin und Ngarangarin (SMFD) (*Acanthotyla aruana* Horvath). PAPUA NEW GUINEA: 6 ♂, 5 ♀, SE, Western District, Oriomo R, 3 m, 5–6 August 1964, H. Clissold (BMNH); 2 ♂, 1 ♀, Western District, Oriomo, Gout. Sta., 26–28 October 1960, J. L. Gressitt (BPBM); 5 ♂, 4 ♀, SE, Balimo, 9 m, 7 March 1964, and 6–7 August 1964, H. Clissold (BMNH); 8 ♂, 5 ♀, SE, Western District, Ruka, 9 m, 12 August 1964, H. Clissold (BMNH); 1 ♂, SE, Daru Island, 3 m, 19 July 1964, H. Clissold (BMNH); 1 ♂, SE, Brown River and Vanapa River, 16 December 1964, L. and M. Gressitt (BPBM); 2 ♂, SE, Port Moresby to Brown River, 30 m, 29 October to 1 November 1965, J. Sedlacek (BPBM); 7 ♂, 3 ♀, Moorhead, 18 m, 30 June 1964, and 6–14 July 1964, H. Clissold (BMNH); 4 ♂, 2 ♀, SE, Western District, Tala, 13 July 1964, H. Clissold (BMNH); 1 ♂, 1 ♀, SE, Mamai, E of Port Glasgow, 150 m, 9–16 Febrery 1965, R. Straatman (BPBM); 1 ♂, 3 ♀, Central District, Brown River, 2 March 1966 G. Monteith (QMBA); 6 ♂, 2 ♀, Port Moresby, 30 March 1965, Balogh and Szent-Ivany (HNHM); 1 ♂, 1 ♀, Laloki, April 1909, F. Muir (CAS).

Discussion.—Like *Acanthotyla distinguenda* with head dorsally almost black, humeral angles of pronotum rounded, and slightly prominent, gonocoxae I reniform, and paratergite IX with lower third exposed and bifurcate (Figs. 29, 33).

In *A. fasciata* the posteroventral edge of male genital capsule at middle third has a tiny projection (sometimes difficult to see) directed upward (Figs. 13–14, 25), whereas in *A. distinguenda* the posteroventral edge of the genital capsule has a stout spinous conical projection directed obliquely upward (Figs. 15–16).

Acanthotyla flexuosa (Blöte)
(Figs. 2, 28, 32, 41)

Brachylybas flexuosus Blöte 1936: 31.
Acanthotyla flexuosa: Brailovsky and Martinez 1994: 73.

Redescription.—*Measurements:* Male: Head length 1.40; width across eyes 1.70; interocular space 0.98; preocular distance 1.04; interocellar space 0.39; length of antennal segments: I, 1.52; II, 2.16; III, 1.60; IV, 1.08. Pronotum: Length 1.88; maximum width of anterior lobe 1.80; maximum width of posterior lobe 3.08. Scutellar length 1.30; width 1.24. Body length 8.26. Female: Head length 1.36; width across eyes 1.76; interocular space 1.12; preocular distance 1.12; interocellar space 0.42; length of antennal segments: I, 1.60; II, 2.24; III, 1.67; IV, 1.12. Pronotum: Length 1.96; maximum width of anterior lobe 1.24; maximum width of posterior lobe 3.28. Scutellar length 1.40; width 1.32. Body length 8.50.

Male: *Dorsal coloration:* Head yellow to dark orange with punctures, frons and vertex reddish brown; antennal segments II and III yellow and IV yellow with basal joint pale brown; anterior lobe of pronotal disk, and transversal fascia below calli dark yellow with the punctures reddish brown to dark chestnut orange; posterior lobe of pronotal disk dark chestnut orange scattered with dark yellow marks; intercallar space black; scutellum yellow with punctures reddish brown, and basal angle reddish brown to black; clavus and corium pale brown with claval and corial veins, and costal margin yellow; apical margin yellow with inner third pale brown; dorsal abdominal segments dark orange. *Ventral coloration:* Head yellow to orange, with punctures reddish brown, and wide black longitudinal stripe at middle third; rostral segment I yellow, and II to IV dark brown; buccula yellow with punctures chestnut orange; propleura, mesopleura, and metapleura yellow with punctures chestnut orange; coxae reddish brown; trochanters yellow; fore and middle femora yellow, speckled with pale brown discoidal spots, and with subdistal pale brown ring; hind femur yellow, speckled with pale brown discoidal spots, and with two pale brown rings, one near middle third, and other subdistal; tibiae pale brown

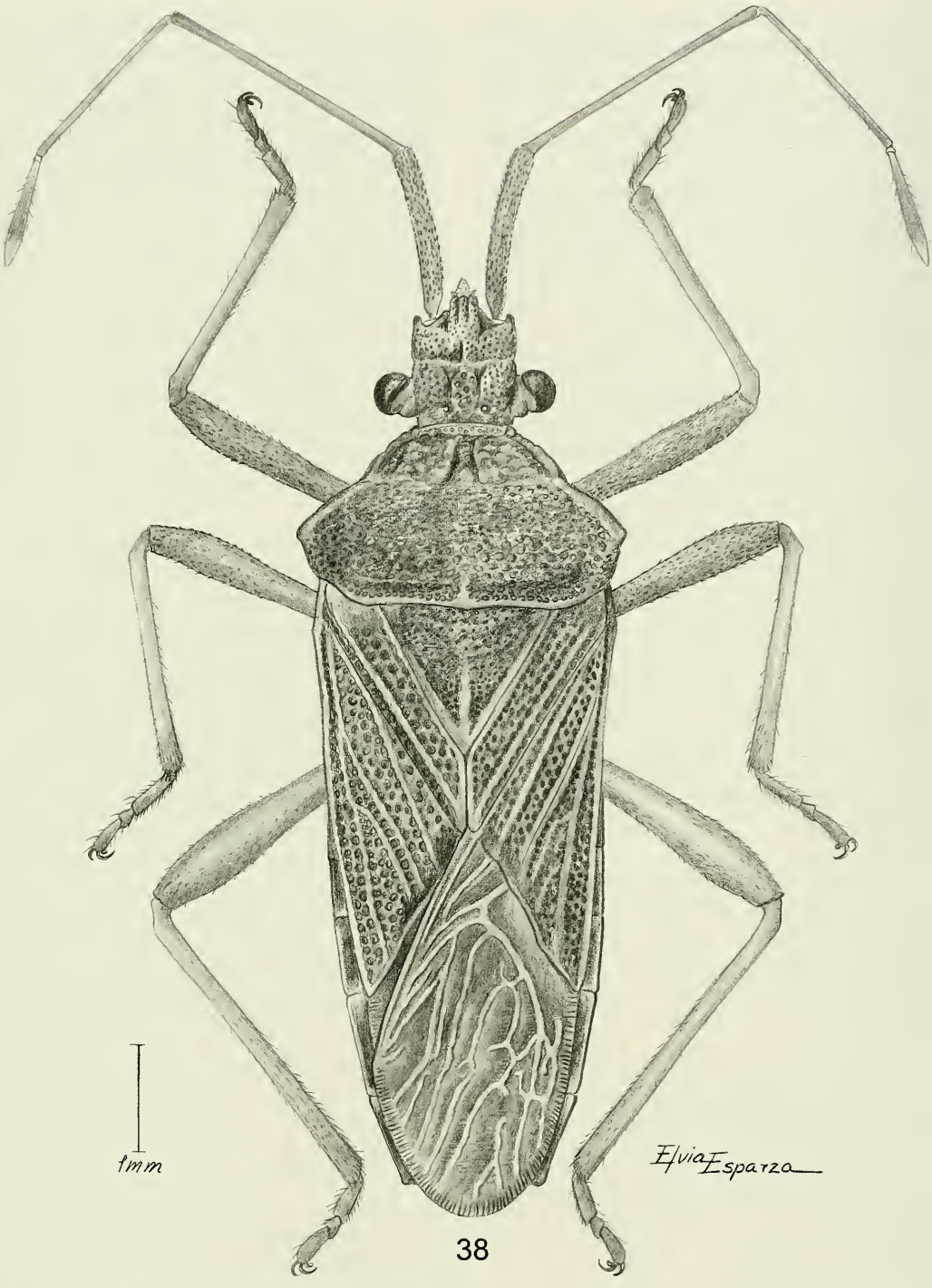


Fig. 38. Dorsal view of *Acanthotyla nabirenia*, male.

with two yellow rings, one subbasal, other near middle third; tarsi pale chestnut yellow; middle third of abdominal sterna dark reddish brown, and laterally yellow with punctures reddish brown to dark chestnut orange; genital capsule yellow with punctures reddish brown to chestnut orange.

Head: Rostrum reaching posterior border of abdominal sternite III or anterior border of IV.

Thorax: Humeral angles subacute, elevated, slightly laminate, and higher than posterior pronotal disk; intercallar space narrow, flat or tiny convex (Fig. 2).

Genital capsule: Posteroventral edge transversely concave; lateral angles straight, and not expanded; middle third with stout and quadrate projection, apically slightly bifid, and clearly directed upward.

Female: Color similar to male. Connexival segments VIII and IX reddish brown with dark yellow marks at posterior third; dorsal abdominal segments VIII and IX dark orange; genital plates yellow, with punctures, middle third of gonocoxae I, and posterior margin of paratergite IX reddish brown to chestnut orange.

Genital plates: Gonocoxae I enlarged dorsoventrally; mesial margins broadly contiguous, and weakly emarginate, with middle third shallowly depressed parallel to the margin, and upper third overlapping; paratergite VIII small, triangular, with spiracle visible; paratergite IX not overlapping at middle third, and larger than paratergite VIII (Figs. 28, 32).

Variation.—1, Antennal segment IV dark orange with basal joint brown. 2. Posterior lobe of pronotal disk yellow with punctures chestnut orange.

Distribution.—This species was described from two females (holotype and paratype) collected in Dutch New Guinea (Indonesia: Irian Jaya) without definite locality, and included in the genus *Brachylybas* with the binomious *Brachylybas flexuosus*. Brailovsky and Martinez (1994) revised the genus *Brachylybas* and transferred that species to *Acanthotyla*. This species is now recorded from Papua New Guinea.

Material examined.—INDONESIA: 1 ♀, Irian Jaya (Dutch New Guinea), April–May 1911, K. Gjellerup (holotype RNHL). PAPUA NEW GUINEA: 3 ♂, 4 ♀, Port Moresby, 30 March 1965 and 2–8 April 1965, Balogh and Szent Ivany (HNHM, UNAM); 2 ♂, Brown River, 20 km W of Port Moresby, 29 April 1960, C. W. O'Brien (BPBM); 1 ♂, Brown River, 21 May 1956, E. J. Ford Jr. (BPBM).

Discussion.—*Acanthotyla flexuosa* is distinguished by having the humeral angles subacute, and laminate, the intercallar space narrow, and the posteroventral edge of the male genital capsule at middle third with stout and quadrate projection, apically bifid. The female genital plates have the gonocoxae I enlarged dorsoventrally with the middle third shallowly depressed along the margin, and with the upper third overlapping (Figs. 28, 32).

In *A. distinguenda* and *A. fasciata*, the humeral angles are rounded, hardly prominent, and not subacute or laminate, the intercallar space is broadened, and the male genital capsule and female genital plates are quite distinct (Figs. 13–16, 25, 28–29, 32–33).

Acanthotyla kaloboana Brailovsky, new species

(Figs. 3, 23–24, 26, 31, 37)

Description.—*Measurements:* Male: Head length 1.48; width across eyes 1.88; interocular space 1.16; preocular distance 1.06; interocellar space 0.40; length of antennal segments: I, 2.08; II, 3.00; III, 1.96; IV, 1.36. Pronotum: Length 2.08; maximum width of anterior lobe 2.08; maximum width of posterior lobe 3.24. Scutellar length 1.36; width 1.36. Body length 9.65. Female: Head length 1.44; width across eyes 1.84; interocular space 1.10; preocular distance 1.00; interocellar space 0.38; length of antennal segments: I, 1.88; II, 2.72; III, 1.84; IV, 1.24. Pronotum: Length 2.04; maximum width of anterior lobe 1.94;

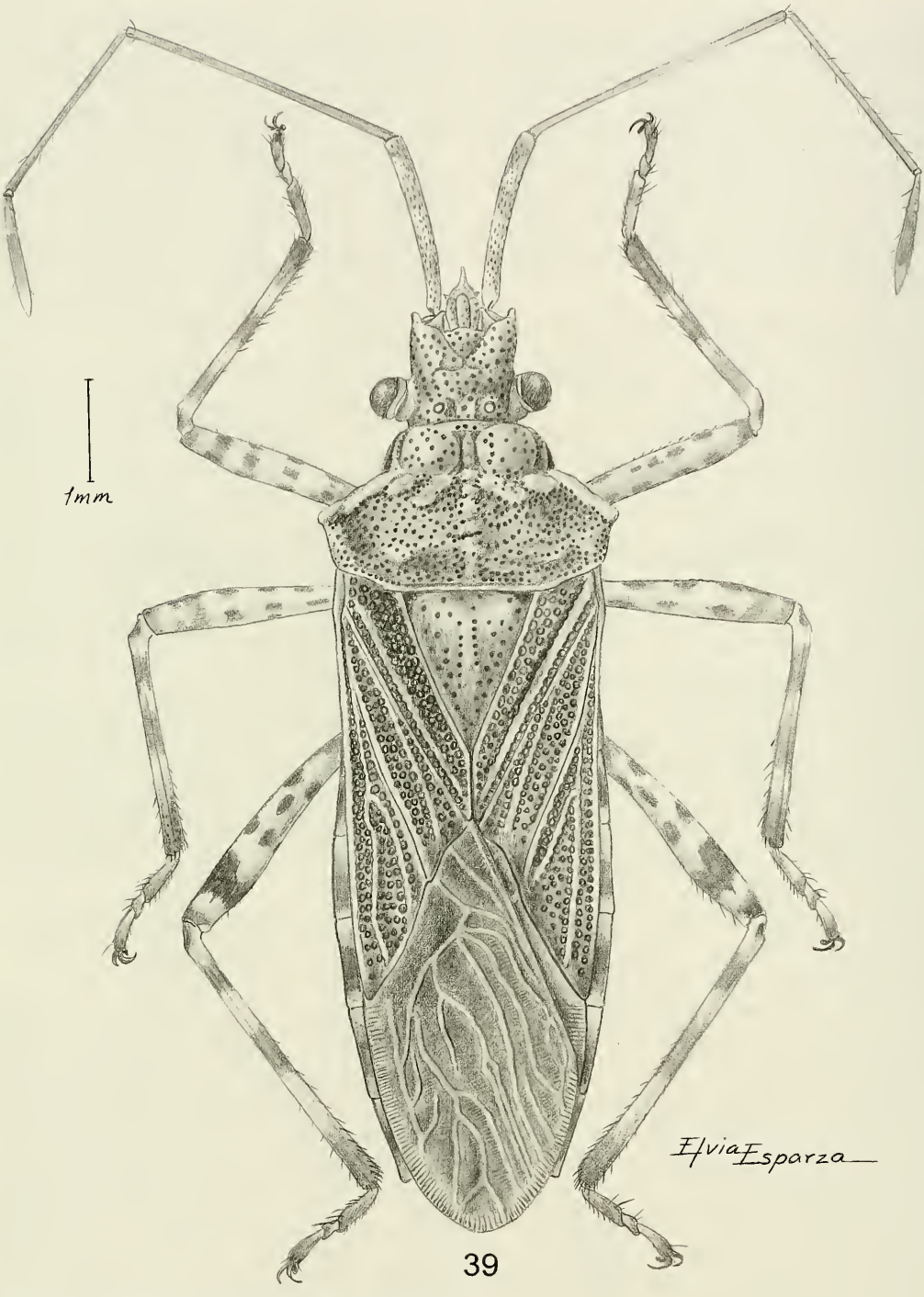


Fig. 39. Dorsal view of *Acanthotyla kiungala*, male.

maximum width of posterior lobe 3.04. Scutellar length 1.44; width 1.32. Body length 9.56.

Male: *Dorsal coloration:* Head yellow with punctures reddish brown; antennal segment I yellow with tiny orange tubercles, segments II and III chestnut orange, and IV reddish brown with apex chestnut orange; anterior lobe of pronotal disk yellow, with punctures reddish brown, and black spot at anterior third of intercallar space; posterior lobe of pronotal disk yellow, with punctures reddish brown, and broad blackish transverse fascia near to posterior margin; scutellum yellow with punctures reddish brown, and basal angle black; clavus and corium pale brown, with claval and corial veins, costal margin, and apical margin dark yellow; hemelytral membrane dark brown with black irregular spots, and dark yellow veins; dorsal abdominal segments dark orange. *Ventral coloration:* Head yellow with punctures reddish brown to chestnut orange, and the middle third with broad black longitudinal stripe; rostral segments pale brown with basal and apical joint of rostral segment II yellow; propleura, mesopleura, and metapleura yellow with punctures reddish brown; coxae dark reddish brown; trochanters yellow; fore and middle femora yellow, speckled with pale brown discoidal spots, and with subdistal pale brown ring; hind femur yellow, speckled with pale brown discoidal spots, and with two pale brown rings, one near middle third and other subdistal; tibiae pale brown with two yellow rings, one subbasal, other near middle third; tarsi pale chestnut yellow; middle third of abdominal sterna dark reddish brown, and laterally yellow with punctures reddish brown to chestnut orange; pleural margin of abdominal sterna III to V yellow with punctures reddish brown, and VI and VII yellow with black to reddish brown rectangular spots close to posterior third; genital capsule reddish brown.

Head: Rostrum reaching posterior margin of abdominal sternite III.

Thorax: Humeral angles rounded or subacute, directed upward, slightly laminate, and higher than posterior pronotal disk; intercallar space relatively narrow, with weakly longitudinal carina or entirely flat (Fig. 3).

Genital capsule: Posteroventral edge transversely concave; lateral angles not expanded, almost straight; middle third broad, thickness, without stout spinous projection (Figs. 23–24).

Female: Color similar to male. Connexival segment VIII reddish brown, with anterior and posterior border yellow; connexival segment IX yellow with reddish brown spot near posterior third; dorsal abdominal segments VIII and IX dark reddish brown to dark orange; gonocoxae I black with outer margin close to middle third yellow; paratergite VIII and IX reddish brown to black with upper margin of VIII and inner margin of IX yellow.

Genital plates: Gonocoxae I reniform, enlarged dorsoventrally; mesial margin broadly contiguous and clearly emarginate; parallel to each margin conspicuously raised, and the space between the border and the margin strongly excavate throughout the entire plate; paratergite VIII and IX totally exposed; paratergite VIII small, triangular, with spiracle visible; paratergite IX not overlapping at middle third, larger than paratergite VIII, strongly carinated, and reflexed, with lower third covered and truncated (Figs. 26, 31).

Variation.-1, Head dorsally black with tylus, jugum and postocular tubercle yellow. 2, Antennal segment IV pale chestnut orange with basal joint brown. 3, Basal angle of scutellum yellow. 4, Dorsal abdominal segments reddish brown to black. 5, Pleural margin of abdominal sternite V yellow with black to reddish brown spot close to middle third. 6, Gonocoxae I yellow with punctures reddish brown, and inner margin black.

Type material.—Holotype: ♂, Irian Jaya: Jayawijaya Prov., Salawatti Isl., Kalobo, ca. 10–30 m, 19–22 October 1966 A. Riedel (ZSMC). Paratypes: Irian Jaya: 1 ♂, 1 ♀,

sama data as holotype (UNAM, ZSMC); 1 ♀, Jayawijaya Prov., Batanta Isl., Waylebet, 0–100 m, 28 October 2 November 1996, A. Riedel (ZSMC); 1 ♀, Jayawijaya Prov., Kec Salawatti Kalobo, Walir Isl., 0–20 m, 20 October 1996, A. Riedel (ZSMC); New Guinea: 3 ♂, 3 ♀, without data, col. Wallace (BMNH, UNAM).

Distribution.—Only known from the type material.

Discussion.—*Acanthotyla kalaboana* is easily recognized by the shape of the posteroventral edge of male genital capsule (Figs. 23–24), by the peculiar development of the gonocoxae I (Figs. 26, 31), by the laminate humeral angles (Fig. 3), the intercallar space relatively narrow with weakly carina, and by the black transverse fascia running close to the posterior margin of the posterior lobe of the pronotal disk. In *A. flexuosa*, the most similar species, the male genital capsule, and the shape of the gonocoxae I (Figs. 28, 32) are distinct.

Etymology.—Named for its occurrence in Kalobo (Irian Jaya).

Acanthotyla kiungala Brailovsky, new species

(Figs. 4, 17–18, 39)

Description.—*Measurements:* Male: Head length 1.48; width across eyes 1.90; interocular space 1.16; preocular distance 1.14; interocellar space 0.43; length of antennal segments: I, 1.90; II, 2.72; III, 1.88; IV, 1.26. Pronotum: Length 2.20; maximum width of anterior lobe 1.84; maximum width of posterior lobe 3.04. Scutellar length 1.52; width 1.20. Body length 9.25. Female: Head length 1.52; width across eyes 1.96; interocular space 1.16; preocular distance 1.16; interocellar space 0.47; length of antennal segments: I, 2.00; II, 2.92; III, 2.04; IV, 1.22. Pronotum: Length 2.22; maximum width of anterior lobe 1.98; maximum width of posterior lobe 3.28. Scutellar length 1.56; width 1.32. Body length 9.80.

Male: *Dorsal coloration:* Head yellow with punctures reddish brown; antennal segments II and III chestnut yellow, and IV chestnut orange with apex yellow; anterior lobe of pronotal disk and scutellum yellow, with punctures reddish brown; intercallar space black; posterior lobe of pronotal disk pale orange brown, with punctures reddish brown, and area behind calli yellow; clavus and corium pale brown, punctures reddish brown, and claval and corial veins, and costal margin yellow; dorsal abdominal segments dark orange. *Ventral coloration:* Head yellow with punctures chestnut orange, and middle third with broad longitudinal black stripe; rostral segments pale brown with basal and apical joint of segments II and III yellow; propleura, mesopleura, and metapleura yellow with punctures chestnut orange; coxae dark reddish brown; trochanters yellow; fore and middle femora yellow, speckled with pale brown discoidal spots, and with subdistal pale brown ring; hind femur yellow, speckled with pale brown discoidal spots, and with two pale brown rings, one near middle third and other subdistal; tibiae pale brown with two yellow rings, one subbasal, other near middle third; tarsi pale chestnut yellow; middle third of abdominal sterna dark reddish brown, and laterally yellow with pucntures reddish brown to chestnut orange; genital capsule reddish brown.

Head: Rostrum reaching anterior margin or middle third of abdominal sternite IV.

Thorax: Humeral angles subacute, and laminate, elevated, directed upward, and higher than posterior pronotal disk; intercallar space narrow with prominent carina (Fig. 4).

Genital capsule: Posteroventral edge transversely concave; lateral angles straight without projections; middle third with stout spinous conical projection, directed posteriorly, and upward (Figs. 17–18).

Female: Color similar to male. Connexival segment VIII reddish brown with anterior and posterior margin yellow, and IX yellow with reddish brown spot near posterior margin; dorsal abdominal segments

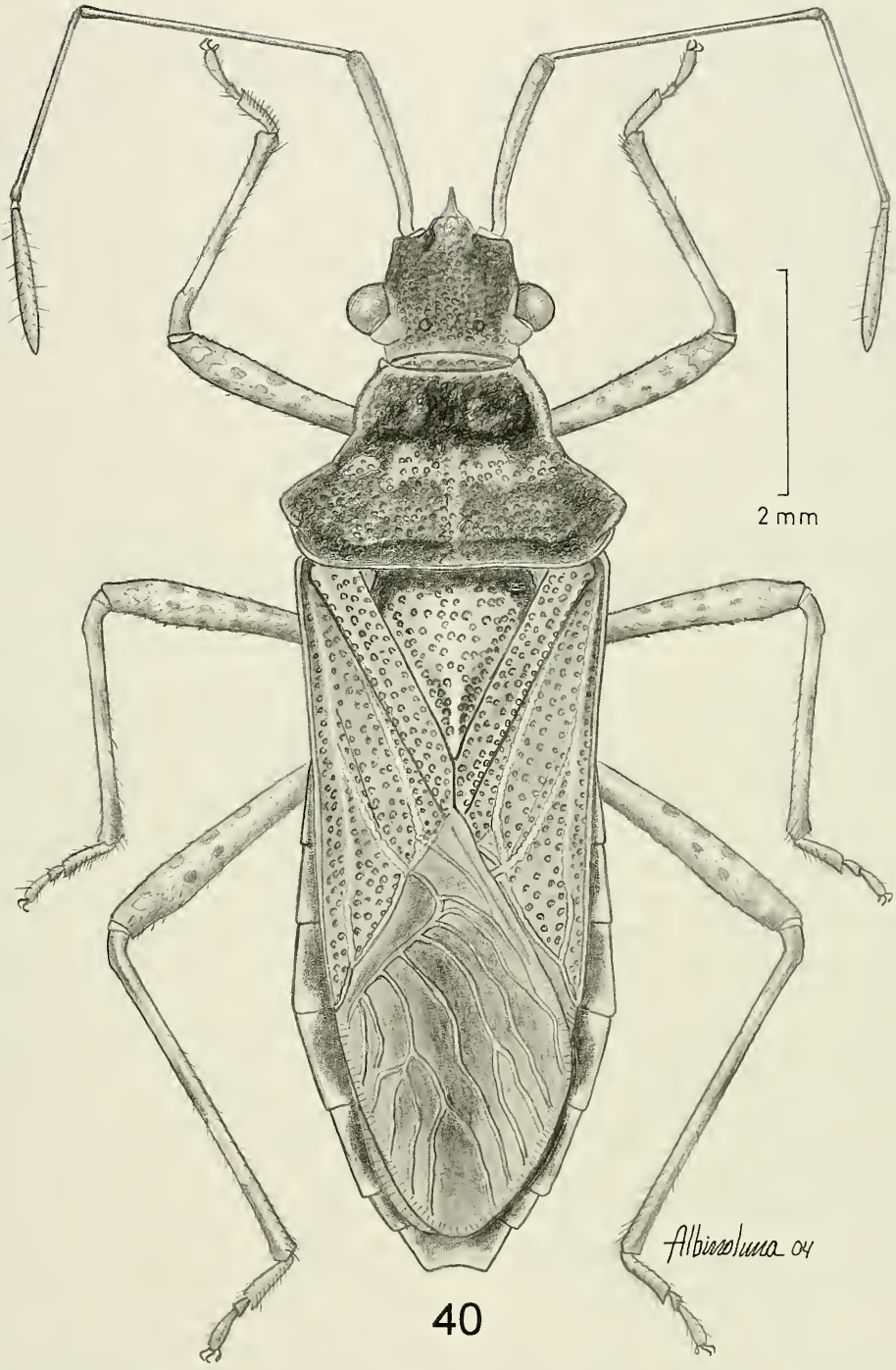


Fig. 40. Dorsal view of *Acanthotyla protenta*, female.

VIII and IX dark orange; genital plates yellow with punctures reddish brown.

Genital plates: Gonocoxae I enlarged dorsoventrally, broadly contiguous, and emarginate; middle and lower third shallowly depressed along each margin; paratergite VIII and IX totally exposed; paratergite VIII small, triangular, with spiracle visible; paratergite IX squarish, and larger than paratergite VIII.

Type material.—Holotype: ♂, Papua New Guinea: Kiunga, Fly River, 14–17 August 1957, W. W. Brandt (BPBM). Paratypes: Papua New Guinea: 4 ♂, 2 ♀, Kiunga, Fly River, 11–13 August 1957, W. W. Brandt (BPBM, UNAM); 1 ♂, Fly River, Olsobip, 400–600 m, August 1969, J. and M. Sedlacek (BPBM); 1 ♂, Kiungala, 28–30 August 1969, J. Balogh (HNHM).

Distribution.—Only recorded from the type material.

Discussion.—Like *Acanthotyla borneana,* with the head dorsally yellow with punctures reddish brown to chestnut orange, the intercallar space narrow with a prominent carina, the humeral angles subacute and laminate, and the female genital plates similar. In *A. kiungala,* recorded only from Papua New Guinea, the posteroventral edge of the male genital capsule has at middle third a prominent stout, spinous, conical projection directed posteriorly (Figs. 17–18), and in *A. borneana,* known only from Borneo, has at middle third of the male genital capsule a stout, rounded, almost globosus projection, directed posteriorly and weakly upward (Figs. 11–12).

Etymology.—Named for its occurrence in Kiunga (Papua New Guinea).

Acanthotyla nabirenia Brailovsky, new species

(Figs. 21–22, 38)

Description.—*Measurements:* Male: Head length 1.36; width across eyes 1.76; interocular space 1.00; preocular distance 0.94; interocellar space 0.42; length of antennal segments: I, 1.68; II, 2.64; III, 1.72; IV, 1.24. Pronotum: Length 1.84; maximum width of anterior lobe 1.72; maximum width of posterior lobe 2.92. Scutellar length 1.36; width 1.28. Body length 8.40. Female: Head length 1.34; width across eyes 1.90; interocular space 1.12; preocular distance 1.04; interocellar space 0.42; length of antennal segments: I, 1.88; II, 2.80; III, 1.88; IV, 1.28. Pronotum: Length 2.08; maximum width of anterior lobe 2.00; maximum width of posterior lobe 3.40. Scutellar length 1.52; width 1.44. Body length 9.85.

Male: *Dorsal coloration:* Head reddish brown to black, with tylus, jugum, area adjacent to eyes and postocular tubercle yellow; antennal segment I yellow speckled with tiny pale orange spots, segments II and III yellow and IV yellow with basal joint brown; anterior lobe of pronotal disk yellow with punctures reddish brown, and intercallar space black; posterior lobe of pronotal disk including the humeral angles dark brown to black with posterior margin and a transversal fascia behind calli yellow; scutellum yellow with punctures reddish brown, and basal angle black; clavus and corium pale brown with punctures reddish brown to chestnut orange, and claval and corial veins, and costal margin yellow; dorsal abdominal segments dark orange. *Ventral coloration:* Head yellow with punctures chestnut orange and middle third with broad longitudinal black stripe; buccula yellow; rostral segments pale brown with basal and apical joint of rostral segment II yellow; propleura, mesopleura, and metapleura yellow with punctures chestnut orange; coxae dark reddish brown with apex yellow; trochanters yellow; fore and middle femora yellow, speckled with pale brown discoidal spots, and with subdistal pale brown ring; hind femur yellow, speckled with pale brown discoidal spots, and with two pale brown rings, one near middle third and other subdistal; tibiae pale brown with two yellow rings, one subbasal, other near middle third; tarsi pale chestnut yellow; middle third of abdominal sterna dark reddish brown, and laterally yellow with punc-

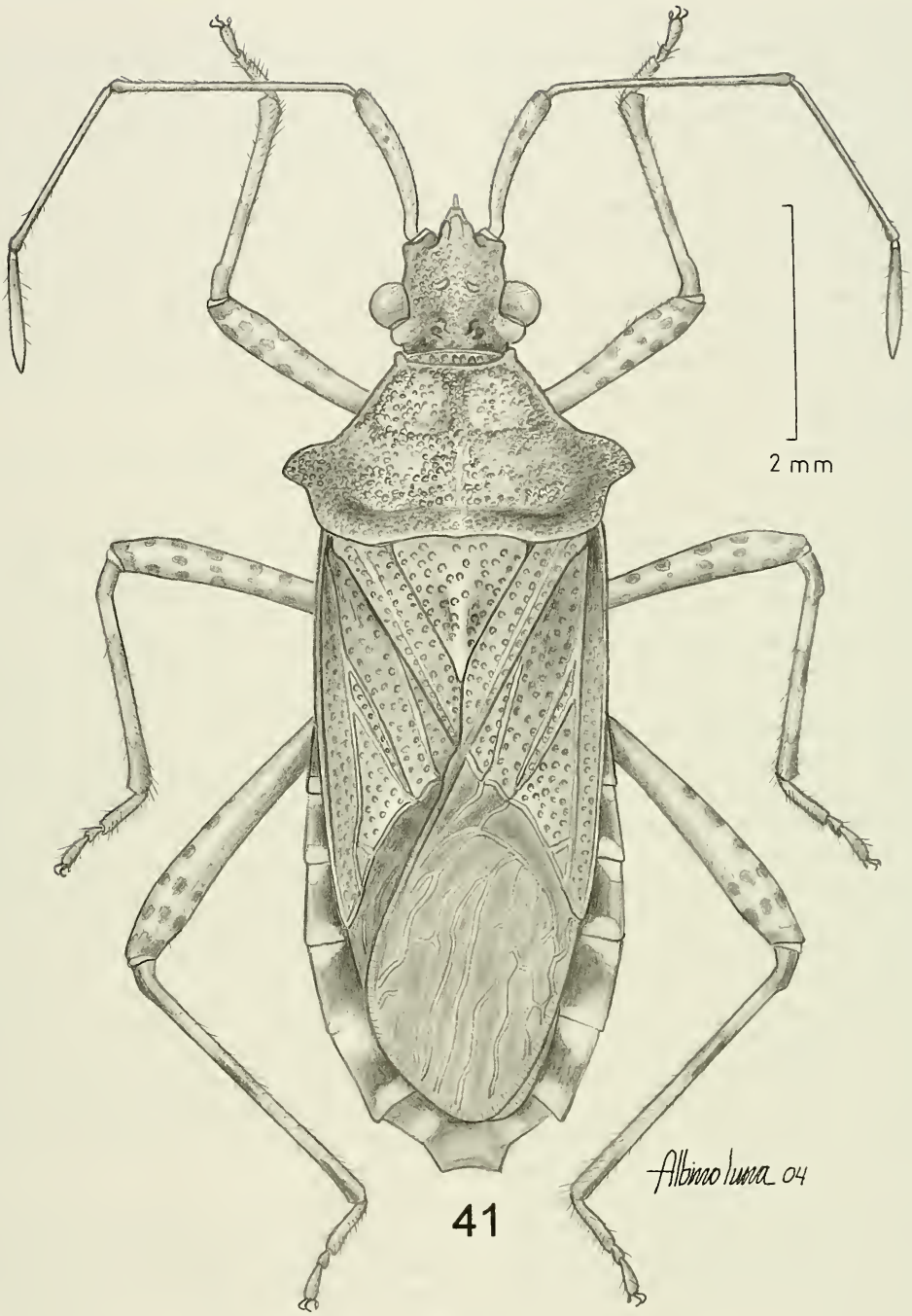


Fig. 41. Dorsal view of *Acanthotyla flexuosa*, female.

tures reddish brown to chestnut orange; genital capsule reddish brown.

Head: Rostrum reaching posterior border of abdominal sternite III.

Thorax: Humeral angles subacute, elevated, slightly laminate, and higher than posterior pronotal disk; intercallar space narrow, with shallow carina.

Genital capsule: Posteroventral edge transversely concave; lateral angles straight, not expanded; middle third broad, thickness, rounded, without stout spinous projection (Figs. 21–22).

Female: Color similar to male. Connexival segment VIII reddish brown with anterior and posterior border yellow, and IX yellow; dorsal abdominal segments VIII and IX dark orange; gonocoxae I yellow, punctures reddish brown, and inner margin black; paratergite VIII and IX yellow with outer margin of VIII and inner margin of IX pale brown.

Genital plates: Gonocoxae I enlarged dorsoventrally; mesial margin broadly contiguous, conspicuously emarginate; parallel to each margin shallowly depressed; paratergite VIII small, triangular, with spiracle visible; paratergite IX not overlapping at middle third, larger than paratergite VIII, with lower third covered and truncate.

Variation.-1, Anterior lobe of pronotal disk black to reddish brown with yellowish marks. 2, Posterior lobe of pronotal disk dark to pale orange brown, with yellow marks behind calli. 3, Femora and tibiae dark to pale orange brown.

Type material.—Holotype: ♂, New Guinea: NW, Nabire, S. Geelvink Bay, 0–30 m, 2–9 July 1962, J. Sedlacek (BPBM). Paratypes: New Guinea: 3 ♂, 2 ♀, NW, Nabire, S. Geelvink Bay 0–40 m, 2–9 July 1962, 1–4 September 1962, J. Sedlacek (BPBM, UNAM); Irian Jaya (Dutch New Guinea): 1 ♂, 2 ♀, Fakfak, 16–20 July 1939, R. G. Wind (CAS); 2 ♀, Manokwari Prov., Wasior, 0–500 m, 8–15 January 2001, A. Riedel (UNAM); 3 ♂, 2 ♀, Vogelkop, Bomberi, 700–900 m, 7–8 June 1959, J. L. Gressitt (BPBM).

Distribution.—Only known from the type material.

Discussion.—Like *Acanthotyla borneana,* the humeral angles are slightly laminate, and the intercallar space is narrow with a shallow to prominent carina. In *A. nabirenia,* the first gonocoxae do not overlap at the upper third and parallel to each margin are entirely and shallowly excavated; the posteroventral edge of male genital capsule at middle third has a stout, rounded processes, directed upward (Figs. 21–22); and the head in dorsal view is almost black to reddish brown. In *A. borneana,* the head is yellow with chestnut orange punctures, the gonocoxae I at upper third overlap, and parallel to each margin are shallowly excavated at inner and middle third, and the posteroventral edge of male genital capsule has a stout and rounded tubercle directed posteriorly and weakly upward (Figs. 11–12).

Etymology.—Named for its occurrence in Nabire (New Guinea).

Acanthotyla protenta Brailovsky, new species

(Figs. 5–6, 19–20, 30, 35, 40)

Description.—*Measurements:* Male: Head length 1.42; width across eyes 1.80; interocular space 1.14; preocular distance 1.08; interocellar space 0.42; length of antennal segments: I, 1.60; II, 2.40; III, 1.76; IV, 1.20. Pronotum: Length 1.84; maximum width of anterior lobe 1.82; maximum width of posterior lobe 2.92. Scutellar length 1.32; width 1.22. Body length 8.58. Female: Head length 1.38; width across eyes 1.96; interocular space 1.24; preocular distance 1.12; interocellar space 0.41; length of antennal segments: I, 1.66; II, 2.48; III, 1.92; IV, 1.24. Pronotum: Length 1.96; maximum width of anterior lobe 1.96; maximum width of posterior lobe 3.20. Scutellar length 1.56; width 1.40. Body length 9.75.

Male: *Dorsal coloration:* Head black with tylus, and postocular tubercle yellow; jugum yellow with punctures reddish brown; antennal segments II and III yellow and IV dark chestnut orange with basal joint brown, and apex pale chestnut orange; pronotum dark to pale yellow with punctures chestnut orange; intercallar space black; scutellum yellow with punctures chestnut orange, and basal angle black; clavus and corium pale yellow brown with

punctures reddish brown to chestnut orange, and claval and corial veins, costal margin, and apical margin pale yellow; dorsal abdominal segments dark orange. *Ventral coloration:* Head black with two short yellow longitudinal stripes lateral to middle line and close to eyes and buccula; rostral segments pale chestnut orange; propleura, mesopleura, and metapleura yellow with punctures chestnut orange; coxae dark reddish brown with apex yellow; trochanters yellow; fore and middle femora yellow, speckled with pale brown discoidal spots, and with subdistal pale brown ring; hind femur yellow, speckled with pale brown discoidal spots, and with two pale brown rings, one near middle third and other subdistal; tibiae pale brown with two yellow rings, one subbasal, other near middle third; tarsi pale chestnut yellow; middle third of abdominal sterna dark reddish brown, and laterally yellow with punctures reddish brown to chestnut orange; genital capsule reddish brown.

Head: Rostrum reaching posterior margin of abdominal sternite III or anterior third of IV.

Thorax: Humeral angles rounded, slightly prominent, elevated, and higher than posterior pronotal disk; intercallar space broad and flat.

Genital capsule: Posteroventral edge transversely straight or slightly concave; lateral angles elevated, exposed, and apically quadrate; middle third with an elongate, apically acute projection, curved upward (Figs. 19–20). Parameres in Figs. 5–6.

Female: Color similar to male. Connexival segments VIII and IX yellow with posterior third reddish brown; dorsal abdominal segments VIII and IX dark reddish brown; genital plates yellow with punctures, posterior third of paratergite VIII and IX, and middle third of gonocoxae I dark reddish brown.

Genital plates: Gonocoxae I reniform, enlarged dorsoventrally, with deep depression close to middle third; mesial margin broadly contiguous and not emarginate; paratergite VIII and IX totally exposed; paratergite VIII small, triangular, with spiracle visible; paratergite IX not overlapping at middle third, larger than paratergite VIII, strongly carinated, exposed, and reflexed, with lower third bifurcate (Figs. 30, 35).

Variation.—1, Jugum black with anterior third yellow. 2, Calli laterally, humeral angles and posterior margin of pronotum reddish brown to black. 3, Pronotum reddish brown to black with collar and transversal fascia behind calli yellow. 4, Hemelytral membrane dark brown to black with dark yellow veins. 5, Coxae entirely reddish brown.

Type material.—Holotype: ♂, Papua New Guinea: Madang Prov., 16 km WNW of Sapi Forest Reserve, N of Quonona Creek, 160 m, 5°10′S 145°26′E, stop 89-68C, 8 April 1989, D. H. Kavanaugh, G. E. Ball, and N. D. Penny (CAS).

Paratypes: Irian Jaya (Dutch New Guinea): 3 ♂, 3 ♀, Jayapura, Sentani, Cyclops Mts., 300 m, 19–21 September 1990, A. Riedel (UNAM, ZSMC); 1 ♂, Biak I., Mokmer, 5–10 m, 26 May 1959, J. L. Gressitt (BPBM); 1 ♂, 2 ♀, Biak I., Mangrowawa, 50–100 m, 31 May 1959, 29 October 1959, J. L. Gressitt, and T. C. Maa (BPBM); 2 ♀, Jutefa Bay, Pim, 0–100 m, February 1936, L. E. Cheesman (BMNH); 1 ♂, Moffin Bay, September 1944, E. S. Ross (CAS); 9 ♂, 8 ♀, Hollandia, January to May 1945, B. Malkin (UNAM, USNM); 3 ♂, 1 ♀, Lae, 19 August 1944, W. Harden (LACM); 3 ♂, 2 ♀, Lager a. Topferfluss, 14–21 April 1913, Kais Augustfl Exp., S. G. Burgers (ZSMC); 5 ♂, 5 ♀, Biak I., Korim, Nernu, 100–800 m, 14 February 2001, A. Riedel (UNAM); 4 ♀, Biak I., Roidilu, 2 Febrery 2001, A. Riedel (UNAM); 4 ♀, Wasian, 9 September 1939, R. G. Wind (CAS). Papua New Guinea: 1 ♀, SE: Murua River (S. side), 2 m, 17 December 1964, J. Sedlacek (BPBM); 5 ♂, 3 ♀, NE: Bulolo River, 680–700 m, 27 March 1969, 23 April 1969 8 May 1969, 26 September 1969, 26 November 1969, and 6 January

1970, J. Sedlacek (BPBM); 1, Madang Prov., Sapi Forest Reserve, Sapi Forest at confluence with Gogol River, 50 m, 15 March 1989, stop 89-26A, D. H. Kavanaugh, G. E. Ball and N. D. Penny (CAS); 1 ♀, Madang Prov., 14.4 km W of North Coast Rd, on Bunapas Rd., 10 m, 24 April 1989, stop 89-92, D. H. Kavanaugh, G. E. Ball and N. D. Penny (CAS); 1 ♂, Madang Prov., 9.5 km WSW of Naru River Bridge on North Coast Rd, 480 m, 8 March 1989, stop 89-18, D. H. Kavanaugh, G. E. Ball, and N. D. Penny (CAS); 1 ♂, Popondetta District, Sangara, 22 March 1956, E. S. Brown (BMNH); 2 ♂, SE: Popondetta, 25–60 m, 1–4 September 1963, and April 1966, J. Sedlacek and G. Lippert (BPBM); 3 ♂, 3 ♀ Kokoda, 1200', September 1933, L. E. Cheesman (BMNH); 1 ♂, NE: Upper Sepik, Wagu, 180 m, 5 June 1963 (BPBM).

Distribution.—Widespread in New Guinea.

Discussion.—*Acanthotyla distinguenda* and *A. protenta* are strikingly similar in appearance, and only the shape of the posteroventral border of the male genital capsule distinguisheds them.

In *A. protenta,* the lateral angles of the male genital capsule are more prominent, and the middle projection is more slender and acute than for *A. distinguenda* (Figs. 16–16, 19–20).

The female of both species are similar.

Etymology.—Named for its narrow body; from the Latin *protentus,* meaning elongate.

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